Ontario Ministry of Northern Development and Mines

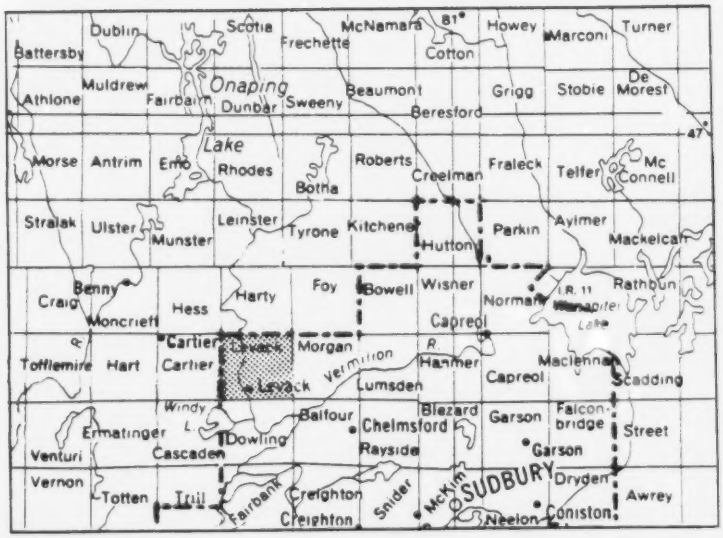
Mines and Minerals Division

ONTARIO GEOLOGICAL SURVEY

GEOLOGICAL DATA INVENTORY FOLIO 472

LEVACK TOWNSHIP

Compiled by the Staff of
the Resident Geologist's Office
Sudbury



LOCATION MAP

Scale: 1:1 013 760 or 1 inch=16 miles

CANADA ONTARIO Mineral Development Exploitation Minérale

This project is part of the five year Canada–Ontario 1985 Mineral Development Agreement (COMDA), a subsidiary agreement to the Economic and Regional Development Agreement (ERDA) signed by the governments of Canada and Ontario.

NTS Number 41 I/11

90-01088/

Mining Claim Map Number M.987

This project is part of the Canada-Ontario Mineral Development Agreement (COMDA)

STATEMENT: This inventory is unedited. Discrepancies may occur for which the Ontario Geological Survey does not assume liability. Information from this source may be quoted if credit is given. Reference to this inventory should be made as follows:

Ontario Geological Survey

1989: Levack Township, Ontario Geological Survey, Data Inventory Folio 472, compiled by the staff of the Resident Geologist's Office, Sudbury; 37 pages and 2 Maps.

Original Compilation by: Jerome, Lucille, April 1988

Date	Page Revised	Revised by

Date	Page Revised	Revised by

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CONVERSION FACTORS FOR MEASUREMENTS IN ONTARIO GEOLOGICAL SURVEY PUBLICATIONS

If the reader wishes to convert imperial units to SI (metric) units or SI units to imperial units the following multipliers should be used:

CONVERSION FROM SI TO IMPERIAL			CONVERSION FROM IMPERIAL TO SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
			LENGTH		
1 mm	0.039 37	inches	1 inch	**25.4**	mm
1 cm	0.393 70	inches	1 inch	**2.54**	cm
1 m	3.280 84	feet	1 foot	**0.304 8**	m
1 m	0.049 709 7	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	**1.609 344**	km
			AREA		
1 cm^2	0.155 0	square inches	1 square inch	**6.451 6**	cm^2
1 m^2	10.763 9	square feet	1 square foot	**0.092 903 04**	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
			VOLUME		
1 cm^3	0.061 02	cubic inches	1 cubic inch	**16.387 064**	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m^3
1 m^3	1.308 0	cubic yards	1 cubic yard	0.764 555	m^3
			CAPACITY		
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	**4.546 090**	L
			MASS		
1 g	0.035 273 96	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 75	ounces (troy)	1 ounce (troy)	31.103 476 8	g
1 kg	2.204 62	pounds (avdp)	1 pound (avdp)	0.453 592 37	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	907.184 74	kg
1 t	1.102 311	tons (short)	1 ton (short)	0.907 184 74	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	1016.046 908 8	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	1.016 046 908 8	t
			CONCENTRATION		
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

1 ounce (troy)/ton (short)	20.0	pennyweights/ton (short)
1 pennyweight/ton (short)	0.05	ounce (troy)/ton (short)

One gram(g) per tonne is equivalent to one part per million (1 ppm).

NOTE–Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries published by The Mining Association of Canada in co-operation with the Coal Association of Canada.

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(Aerial Photographs Index)

ACCOMPANYING MAPS

Property Location Map 1

Exploration Data Map 1

Map Scale 1: 31 680 or 1 inch to ½ mile

DATA SOURCES CHECK LIST

NOTE: The following sources have been searched to compile the data for this area. If no reference data was found the appropriate box is marked 'no'; if reference data was found, the box is marked 'yes'.

All reference data found are included in the following pages. If the box is blank, the data source has not yet been searched. If the box is marked N.A., the source item is Not Applicable to this area and therefore not searched.

	SOURCES OF DATA	Data	Initial
1	Resident Geologist's Office Files	Yes	L.J.
2	Assessment Files Research Office, Toronto	N.A.	L.J.
3	ODM General Index; 9 Volumes	Yes	L.J.
4	Catalogue of Airborne Geophysical Surveys (ODM)	No	L.J.
5	ODM Mineral Resources Circulars and OGS Mineral Deposits Circulars	Yes	L.J.
6	ODM Industrial Mineral Reports	No	L.J.
7	Bibliography of Post Precambrian Theses - Karrow (ODM MP 1)	No	L.J.
8	Bibliography of Precambrian Theses - Ginn (ODM MP 2)	Yes	L.J.
9	Newspaper Clippings File	Yes	L.J.
10	GSC Index to Publications	Yes	L.J.
11	OGS Index to Published Maps and Reports - MP 77 and Supplements to MP 77	Yes	L.J.
12	OGS Index Maps	Yes	L.J.
13	Source Mineral Deposit Records (O.G.S.)	Yes	L.J.
14	Author - Subject Articles File	Yes	L.J.
15	Miscellaneous Papers: ODM & OGS	Yes	L.J.
16	ODM Geological Circulars: OGS Study Series	No	L.J.
17	ODM Preliminary Reports: ODM Bulletins	Yes	L.J.
18	ODM – OGS Open File Reports	Yes	L.J.
19	OGS Northern Ontario Engineering Geology Terrain Studies	Yes	L.J.
20	OGS Aggregate Resources Inventory Papers	No	L.J.
21	OGS Mineral Potential Maps	Yes	L.J.
22	Theses on File, Sudbury	Yes	L.J.
23	Aerial Photographs on File, Sudbury	Yes	L.J.

AIRBORNE GEOPHYSICAL SURVEY DATA

No.	By / For	Type of Survey	Flight Altitude	Flight Line Direction	Flight Line Spacing
17	Aeromagnetic Surveys Ltd. Falconbridge Nickel Mines Ltd.	Airborne magnetometer	?	?	660 ft
26	Aerodat Limited Noramco Explorations Inc.	Airborne magnetometer and electro-magnetometer (VLF)	60 m	North	100 m

GDIF FORM NO. 4

METALS AND MINERALS REFERENCES LIST

△ anh. . . . . Anhydrite	△ fu. . . . . Fuchsite	▲ Ni. . . . . Nickel	△ st. . . . . Stone
△ ank. . . . . Ankerite	△ gn. . . . . Galena	△ Nb . . . . . Niobium	△ talc. . . . . Talc
△ anna . . . . . Annabergite	△ gt. . . . . Garnet	△ Pd . . . . . Palladium	△ Te . . . . . Tellurium
△ ap. . . . . Apatite	△ goe . . . . . Goethite	△ peat . . . . . Peat	△ td. . . . . Tetrahedrite
△ arg . . . . . Argentite	△ Au . . . . . Gold	△ pent . . . . . Pentlandite	△ th. . . . . Thorite
△ As . . . . . Arsenic	△ gf. . . . . Graphite	△ Pt. . . . . Platinum	△ Th . . . . . Thorium
△ asp . . . . . Arsenopyrite	△ gl. . . . . Gravel	▲ py . . . . . Pyrite	△ thuc . . . . . Thucholite
△ asb . . . . . Asbestos	△ gyp. . . . . Gypsum	△ pyl . . . . . Pyrochlore	△ ti . . . . . Titanite
△ ba. . . . . Barite	△ hem . . . . . Hematite	△ pyrl . . . . . Pyrolusite	△ Ti. . . . . Titanium
△ be. . . . . Beryl	△ il . . . . . Ilmenite	▲ po . . . . . Pyrrhotite	△ tour . . . . . Tourmaline
△ Bi. . . . . Bismuth	△ Fe . . . . . Iron	△ q . . . . . Quartz	△ trap . . . . . Trap rock
△ bn . . . . . Bornite	△ IF. . . . . Iron Formation	△ qcv . . . . Quartz carbonate vein	△ W. . . . . Tungsten
△ bran . . . . . Brannerite	△ jas . . . . . Jasper	△ ra. . . . . Radioactive minerals	△ uran . . . . . Uraninite
△ bruc . . . . . Brucite	△ kaol . . . . . Kaolinite (kaolin)	△ RE . . . . . Rare Earths	△ U . . . . . Uranium
△ Cd . . . . . Cadmium	△ ky . . . . . Kyanite	△ sd. . . . . Sand	△ verm . . . . . Vermiculite
△ calc. . . . . Calcite	△ Pb . . . . . Lead	△ sgl . . . . . Sand and gravel	△ Y . . . . . Yttrium
△ carb . . . . . Carbonate	△ lim . . . . . Limonite	△ ss . . . . . Sandstone	△ Zn . . . . . Zinc
△ cel . . . . . Celestite	△ Li. . . . . Lithium	△ scap . . . . . Scapolite	△ zr. . . . . Zircon
△ cc. . . . . Chalcocite	△ mgst . . . . . Magnesite	△ shee . . . . . Scheelite	S. . . . . Sulphide
▲ cp. . . . . Chalcopyrite	△ mag . . . . . Magnetite	△ serp . . . . . Serpentine	cv. . . . . Covellite
△ ch. . . . . Chert	△ mc . . . . . Malachite	△ sh. . . . . Shale	
△ clay . . . . . Clay	△ Mn . . . . . Manganese	△ sid . . . . . Siderite	
△ Co . . . . . Cobalt	△ mb . . . . . Marble	△ si . . . . . Silica	
△ cob. . . . . Cobaltite	△ mar. . . . . Marcasite	△ Ag . . . . . Silver	
△ cb. . . . . Columbite	△ ma . . . . . Marl	△ sl . . . . . Slate	
▲ Cu . . . . . Copper	△ mi . . . . . Mica	△ sm . . . . . Smaltite	
△ cor . . . . . Corundum	△ ml . . . . . Millerite	△ sod. . . . . Sodalite	
△ dol . . . . . Dolomite	△ mo . . . . . Molybdenite	△ spec . . . . . Specularite	
△ ep. . . . . Epidote	△ Mo . . . . . Molybdenum	△ sp. . . . . Sphalerite	
△ ery . . . . . Erythrite	△ mon . . . . . Monazite	△ spd. . . . . Spodumene	
△ fel . . . . . Feldspar	△ ne. . . . . Nephelite (nepheline)	△ staur. . . . . Staurolite	
△ fl . . . . . Fluorite (flurospar)	△ nc. . . . . Niccolite	△ stib. . . . . Stibnite	

Solid triangles indicate metal and mineral occurrences shown on the accompanying maps.

MINERAL OCCURRENCES

Map Ref. Letter	Name(s)	Mineralization	Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks
A	Pacemaker Mines & Oils Ltd., Canada Radium Corp. Ltd.	py, po, cp	--	--	Levack 0014-D1, Cartier 0011-B1
B	Levack Nickel Mines Ltd.	py, po, cp	--	--	Levack 0012-B1
C	Onaping Mine	Ni, Cu	Ni 10	MRC 2, p. 89 MRC 12, p. 266	
D	Boundary Mine	Ni, Cu	Ni 10	MRC 2, p. 89 MRC 12, p. 266	
E	Hardy Mine	Ni, Cu	Ni 5	MRC 2, p. 89 MRC 12, p. 266	
F	Strathcona Mine	Ni, Cu	SMDR 850	MRC 2, p. 89 MRC 12, p. 266	
G	Fraser Mine	Ni, Cu	MDI 040		
H	Fecunis Lake Mine	Ni, Cu	Ni 6	MRC 2, p. 89 MRC 12, p. 266	
I	Craig Mine	Ni, Cu	--		
J	Longvack Mine	Ni, Cu	Ni 12	MRC 2, p. 89 MRC 12, p. 266	
K	Longvack South Mine	Ni, Cu	Ni 18		
L	North Mine	Ni, Cu	Ni 19		
M	Onex Shaft	Ni, Cu	--		

GDIF FORM NO. 1

MINERAL OCCURRENCES

Map Ref. Letter	Name(s)	Mineralization	Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks
N	Levack Mine	Ni, Cu	Ni 17	MRC 2, p. 93 MRC 12, p. 268	
O	McCreedy West Mine	Ni, Cu	SMDR 868	MRC 12, p. 268	
P	Coleman Mine	Ni, Cu	Ni 20	MRC 12, p. 268	
Q	McCreedy East Property	Ni, Cu	--		
R	Big Levack Property	Ni, Cu	Ni 14	MRC 12, p. 268	

LEVACK TOWNSHIP

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE SUDBURY COMPANY/AUTHOR (file number)		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY	PRODUCTION		
1	Falconbridge Nickel Mines Ltd. (Levack 0010-A1)				66															
2	Falconbridge Nickel Mines Ltd. (Levack 0010-D1)				66															
3	Falconbridge Nickel Mines Ltd. (Levack 0010-E1)				67															
4	Falconbridge Nickel Mines Ltd. (Levack 0011-A1)				81															
5	Falconbridge Nickel Mines Ltd. (Levack 0011-B1)				67															
6	Falconbridge Nickel Mines Ltd. (Levack 0016-A1)				83															
7	Falconbridge Nickel Mines Ltd. (Levack 0013)				50															
8	Falconbridge Nickel Mines Ltd. (Levack 0013)				50															
9	Falconbridge Nickel Mines Ltd. (Levack 0013)				50															

GDIF FORM NO. 2

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																			
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE SUDBURY COMPANY/AUTHOR (file number)		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY	PRODUCTION		
10	Falconbridge Nickel Mines Ltd. (Levack 0013)				52 51																
11	Falconbridge Nickel Mines Ltd. (Levack 0013)				53 56 59																
12	Falconbridge Nickel Mines Ltd. (Levack 0013)				52- 55																
13	Falconbridge Nickel Mines Ltd. (Levack 0013)				53 55																
14	Falconbridge Nickel Mines Ltd. (Levack 0013)				53 55 56 57																
15	Falconbridge Nickel Mines Ltd. (Levack 0013)				54- 58 62 63																
16	Falconbridge Nickel Mines Ltd. (Levack 0013)				57																

GDIF FORM NO. 2

LEVACK TOWNSHIP

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE SUDBURY		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY	PRODUCTION		
COMPANY/AUTHOR (file number)																				
17	Falconbridge Nickel Mines Ltd. (Dowling 0018-A1)	51							51											
18	Pacemaker Mines & Oils Ltd. (Cartier 0011-B1)							58												
18	Canada Radium Corp. Ltd. (Levack 0014-D1)	55						55				55[1]					55[1]			
19	Taylor, S. (Levack 0010-B1)				55															
20	Inco Ltd. (Levack 0010-C1)				50															
21	Inco Ltd. (Levack 0014-A1)				54 55															
22	Inco Ltd. (Levack 0012-A1)	47										47								
23	Northgate Exploration Ltd. (Levack 0015-A1)											82	82							
23	Northgate Exploration Ltd. (Levack 0017)	83	83[2]																	
24	Levack Nickel Mines Ltd. (Levack 0012-B1)	53[1]		53	53	53		52 59				53[1]								

GDIF FORM NO. 2

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE SUDBURY COMPANY/AUTHOR (file number)		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY	PRODUCTION		
25	Penman, J. O. (Levack 0018)	84										84	84[2]							
26	Noramco Explorations Inc. (Levack SP-001)								87	87										
27	Falconbridge Nickel Mines Ltd. (Levack 0011-C1)						81[3]													
	MINING ACTIVITIES Falconbridge Ltd. Operations: Onaping Mine						55-75 79-82 85-88					35[1]						58-75 79-82 85-88		
	Boundary Mine						53-73											60-73		
	Hardy Mine						51-73					35[1]						53-73		

GDIF FORM NO. 2

LEVACK TOWNSHIP

TYPE OF WORK	Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE SUDBURY COMPANY/AUTHOR (file number)	GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY	PRODUCTION		
Hardy Mine, cont'd																	74[4]-78		
Strathcona Mine						60-88						50[1]					62-88		
Fraser Mine						73 76-88											81-88		
Craig Mine						79 87											87		
Fecunis Lake Mine						52-75 78-81											55-75 78-81		
Longvack Mine			1890s[1]	53[1] 03[1]		1890s 53-61											56-61		
Longvack South Mine						66-76											68-76		

GDIF FORM NO. 2

10 LEVACK TOWNSHIP

TYPE OF WORK	Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE SUDBURY COMPANY/AUTHOR (file number)	GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY	PRODUCTION		
North Mine						64-70 74-84											64-70 74-84		
Onex Shaft						70											70^{5}		
Inco Ltd. Operations: Levack Mine						14-88											14-30 37-88		
McCreedy West Mine (Levack West Mine)						62-88											74-88		
Coleman Mine						64-82											71-82		
McCreedy East Property																	67^{5}		
Big Levack Property			1890s 03^{1}																

GDIF FORM NO. 2

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TYPE OF WORK	Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE SUDBURY COMPANY/AUTHOR (file number)	GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY	PRODUCTION		

[1]No data

[2]No anomaly

[3]Falconbridge Mine Locations

[4]Open pit

[5]Reserve

GDIF FORM NO. 2

DRILLHOLE SUMMARY

Map Drilling Location Number	Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth Degrees	Initial Dip of Hole Degrees	Thickness of Overburden Feet	Total Length of Hole Feet	Mineralization Noted in Log	Assay Data Included for
1	Falconbridge Nickel Mines Ltd.	1	1966	090	45	3	183		
2		1	1966	?	68	0	224	ep	
2		2	1966	?	80	0	189		
2		3	1966	?	45	0	235		
3		L323	1967	--	90	71	71		
4		L362	1981	285	63	18	608	ep, py, hem	
5		L325	1967	--	90	54	54		
6		L328	1967	--	90	0	158	ep	
7		L330	1967	--	90	0	160		
7		L331	1967	--	90	0	102		
8		L366	1983	315	45	0	201	cp, ep	
9		L-XC-1	1950	--	90	0	91	cp	
9		L-XC-2	1950	--	90	0	101	cp	
9		L-XC-3	1950	--	90	0	91	py	
9		L-XC-4	1950	--	90	0	80		
9		L-XC-5	1950	--	90	0	43	py, cp	
10		L-XC-6	1950	--	90	0	100	py, cp	
10		L-XC-7	1950	--	90	0	100		
10		L-XC-8	1950	--	90	0	100	py	
10		L-XC-9	1950	--	90	0	100		
11		L-XC-10	1950	--	90	0	98	py	
11		L-XC-11	1950	--	90	0	102	py	
12		L-XC-1	1952	270	40	0	500		
12		L-XC-2	1952	270	60	0	490		
13		L-XC-4	1951	280	45	4	360	S	
13		L-XC-5	1951	280	55	4	360		
14		L-XC-3	1953	035	40	0	220		
14		L-XC-4	1953	035	48	0	100		
14		L-XC-1	1956	090	73	0	340	py	
15		L-XC-1	1959	--	90	26	315	hem, ep	
16		L-XC-18	1952	320	48	0	360		
16		L-XC-1	1953	300	52	0	193		
16		L-XC-2	1953	300	52	0	167	py, cp, po	

GDIF FORM NO. 3

DRILLHOLE SUMMARY

Map Drilling Location Number	Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth Degrees	Initial Dip of Hole Degrees	Thickness of Overburden Feet	Total Length of Hole Feet	Mineralization Noted in Log	Assay Data Included for
17	Falconbridge Nickel Mines Ltd., cont'd	L-XC-1	1955	170	52	0	320	py	
18		L-XC-1	1954	330	50	0	143	py	
18		L-XC-2	1954	330	55	0	217	py	
19		L-XC-3	1953	200	53	0	320	py	
20		L-XC-1	1955	030	48	0	360	S	
21		L-XC-5	1953	010	40	0	102		
21		L-XC-6	1953	010	45	0	92		
21		L-XC-7	1953	010	50	0	101		
21		L-XC-8	1953	010	50	0	105		
21		L-XC-8	1955	340	45	0	138		
21		L-XC-9	1955	340	49	0	201		
21		L-XC-10	1955	340	54	0	161		
22		L-XC-10	1957	?	75	0	140	ep	
22		L-XC-11	1957	?	70	0	101		
22		L-XC-12	1957	?	60	0	130		
22		L-XC-13	1957	?	80	0	253	ep	
22		L-XC-14	1957	?	75	0	263		
22		L-XC-15	1957	?	65	0	312		
23		L-XC-6	1956	--	90	2.5	400		
24		L-XC-2	1956	--	90	0	442	py, cp	
24		L-XC-3	1956	--	90	0	278	py	
24		L-XC-13	1954	305	55	0	205	py	
24		L-XC-14	1954	305	55	0	155	py, cp	
24		L-XC-4	1955	320	45	0	287	py, cp	
24		L-XC-5	1955	320	51	0	73		
25		L-XC-1	1957	360	70	0	250	py	
25		L-XC-2	1957	--	90	0	157	py	
26		L-XC-3	1957	030	75	0	163	py	
26		L-XC-4	1957	--	90	0	150	py	
27		L-XC-2	1955	065	46	0	280		
27		L-XC-3	1955	065	52	0	240	py	
28		L-XC-1	1962	180	55	3	480		
29		L-XC-16	1954	290	57	0	280	cp,py	

GDIF FORM NO. 3

DRILLHOLE SUMMARY

Map Drilling Location Number	Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth Degrees	Initial Dip of Hole Degrees	Thickness of Overburden Feet	Total Length of Hole Feet	Mineralization Noted in Log	Assay Data Included for
30	Falconbridge Nickel Mines	L-XC-5	1957	060	75	0	200	py, cp	
30	Ltd., cont'd	L-XC-6	1957	060	80	0	320	py, cp	
31		L-XC-4	1956	--	90	0	282		
31		L-XC-5	1956	--	90	0	238		
32		L-XC-4	1958	250	45	0	254		
32		L-XC-5	1958	250	55	0	266		
33		L-XC-15	1954	220	50	0	360	py, cp	
33		L-XC-6	1955	205	50	0	235		
33		L-XC-7	1955	205	54	0	125		
34		L-XC-1	1958	360	42	0	292		
34		L-XC-2	1958	360	50	0	305		
34		L-XC-3	1958	360	60	0	123		
35		L-XC-1	1963	180	45	6	687		
35		L-XC-2	1963	180	70	5	623		
35		L-XC-3	1963	--	90	5	610		
36		L-XC-7	1957	?	65	0	451	py	
36		L-XC-8	1957	?	80	0	412	ep	
36		L-XC-9	1957	--	90	0	577	ep, hem	
37	Taylor, S.	12	1955	224	57	14	397	po, cp, py	
38		17	1955	220	61	6	2027	po, cp, py	
39	Inco Ltd.	8527	1950	--	90	5	800	ep	
40		12014	1954	--	90	117	125		
41		12015	1954	--	90	136	144		
42		12021	1954	--	90	90	96		
43		12027	1954	--	90	105	112		
44		12031	1954	--	90	114	120		
45		12035	1954	--	90	42	52		
46		12039	1954	--	90	33	43		
47		12049	1954	--	90	100	107		
48		12050	1954	--	90	123	131		
49		12073	1954	--	90	87	97		
50		12074	1954	--	90	96	103		
51		12092	1954	--	90	110	361		

GDIF FORM NO. 3

DRILLHOLE SUMMARY

Map Drilling Location Number	Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth Degrees	Initial Dip of Hole Degrees	Thickness of Overburden Feet	Total Length of Hole Feet	Mineralization Noted in Log	Assay Data Included for
52	Inco Ltd., cont'd	12098	1954	--	90	120	326		
53		12110	1954	--	90	141	147		
54		12111	1955	--	90	116	362		
55		12133	1955	--	90	87	601		
56		12146	1955	--	90	119	773		
57		12170	1955	--	90	54	441		
58		12175	1955	--	90	75	268		
59		12183	1955	--	90	90	291		
60		12184	1955	--	90	112	335		
61		12603	1955	--	90	35	251		
62		12604	1955	--	90	58	252		
63		12605	1955	--	90	41	278		
64		12606	1955	--	90	80	275		
65		12634	1955	--	90	76	276		
66		12638	1955	--	90	76	276		
67		12640	1955	--	90	76	188		
68		12641	1955	--	90	114	365		
69		12668	1955	--	90	158	169		
70		12669	1955	--	90	81	91		
71		12670	1955	--	90	79	87		
72		12671	1955	--	90	105	265		
73		12690	1955	--	90	128	350		
74		12710	1955	045	45	5	1060		
75		12711	1955	225	45	12	1082		
76	Levack Nickel Mines Ltd.	1	1953	?	45	?	429		
77		2	1953	?	45	?	654		
78		3	1953	--	90	?	310		
79		4	1953	--	90	?	402		
80		5	1953	--	90	?	438		

GDIF FORM NO. 3

LEVACK TOWNSHIP

GEOCHEMICAL SURVEY DATA

Map Sample Site Reference Number	Type of Survey	Analysis For	By	Reference
1	Soil sampling	Copper	Northgate Exploration Ltd.	Levack 0017

GDIF FORM NO. 5

MISCELLANEOUS DATA

AGE DATING

Site	Method	Material	Reference	Result

GDIF FORM NO. 6

NEWSPAPER CLIPPINGS FILE

NOTE: A file of newspaper clippings about the companies listed below, who have worked in this area, is maintained in the Regional/Resident Geologist's Office.

The office has a collection of newspaper clippings dating from 1968 to the present on the workings of Falconbridge Ltd. and Inco Ltd. in Levack Township.

Falconbridge Ltd.

Sudbury Star	April 18, 1938

Huntington Syndicate

Sudbury Journal	March 19, 1891
Engineering & Mining Journal	January 2, 1892

Inco Ltd.

Sudbury Star	March 18, 1936

Levack Mine

Sudbury Journal	October 29, 1896
	September 10, 1903
Sudbury Star	March 25, 1935
	October 29, 1937
	December 13, 1937

Mond Nickel Co.

Sudbury Journal	January 26, 1918
	January 31, 1918
	July 23, 1913
	October 8, 1913

Mond Nickel Co.

Sudbury Journal	January 26, 1918
	January 31, 1918
	July 23, 1913
	October 8, 1913

Onaping Mine

Sudbury Journal	May 7, 1891

Strathcona Mine

Sudbury Star	March 27, 1929

ODM GENERAL INDEX SEARCH

Words searched:

BIG LEVACK MINE
BOUNDARY MINE
CANADIAN COPPER CO.
CANADA RADIUM CORP. LTD.
COLEMAN MINE
CRAIG SHAFT
DOMINION MINERAL COMPANY
FALCONBRIDGE NICKEL MINES LTD.
FECUNIS MINE
FRASER MINE
HARDY MINE
HUNTINGTON SYNDICATE OF LONDON

Index Volume	Listing:	Report Volume	Part	Page
1	Huntington, Prof. A. K.			
	Notes by, on iron smelting	R.C.		476
	Work by, Levack Tp.	1		233
1	International Nickel Co.			
	Canadian Copper Co. absorbed by	11		21
		12		117
1	Lake Superior Power Co.			
	Levack Tp.	13	1	197
1	Levack Nickel Mine, Levack Tp.			
	Accident	24	1	75, 86
		25	1	58, 64
	Buildings on	25	1	75
	Ilmenite	14	3	162
	Magnetically surveyed	14	3	67
	Photo	13	1	208,209
	Production	24	1	24
		25	1	15
	Rock-house	25	1	75
	Work at (1914)	24	1	100,101
	(1915)	25	1	75
1	Levack Tp., Sudbury Dist.			
	Copper and iron pyrites	R.C.		434
	Geological section	23	1	194
	Nickel ore, character	1		89
	prospecting	5		274
		23	1	112,117
	Ore deposits, notes by Coleman	13	1	197
	Rocks, granite	1		84
	greenstone	1		75
	nickel eruptive	14	3	68
	paper by Brackenbury	23	1	194-201
	peridotite	14	3	121
	petrography	13	1	211
		23	1	196,197
	Sudburite	23	1	200
1	Mond Nickel Co.			
	Boring plant purchased	13	1	42
	used, Levack Tp.	23	1	104,117
	Production (1914)	24	1	24
	(1915)	25	1	14,15, 74-76

GDIF FORM NO. 5

ODM GENERAL INDEX SEARCH

Words searched:

INCO LTD.
LAKE SUPERIOR POWER CO. LTD.
LEVACK MINE
LEVACK NICKEL MINES LTD.
LEVACK TOWNSHIP
LEVACK WEST MINE
LITTLE LEVACK MINE
LONGVACK MINE
LONGVACK SOUTH MINE
MCCREEDY EAST MINE
MCCREEDY WEST MINE
MOND NICKEL COMPANY

Index Volume	Listing:	Report Volume	Part	Page
1	Moose Lake, Levack and Morgan Tps.	13	1	192
	Geology of vicinity	13	1	198
	Rocks on and near	14	3	68
	granite, character	1		84
	nickel eruptive	14	3	66
	petrography	13	1	211
1	Strathcona Nickel Mine, Levack Tp.			
	Analysis of ore from	14	3	67
	Boring in	13	1	197
		14	3	65
	Capital and date of charter	17		44
	Notes on, by Sjostedt	13	1	198
		14	3	67
	Photo	13	1	208,209
2	Canadian Copper Co.			
	Absorbed by International Nickel Co.,			
	effect on refining in Canada	N.C.		R68
	Operations (1916)	26		22,23, 28, 76
	(1917)	27	1	24,27,89
	(1918)	28	1	23, 24
2	Levack Nickel Mine, Levack Tp.			
	Flow-sheet	N.C.		R448
	Historical notes	N.C.		R51, 54
	Location See map.	N.C.		R104
	Mining methods; equipment	N.C.		R219,220
	Norite, dip of	29	1	198
	Offered to British Gov't	N.C.		R15
	Operations (1916)	26		83
	(1917)	27	1	95
	(1918)	28	1	110
	(1919)	29	1	75
	(1920)	30	1	78
	(1921)	31	10	27
	(1922)	32	6	36
	(1923)	33	7	25
	(1924)	34	1	83
	(1925)	35	1	140
	Ore body, description	N.C.		R163-167 207,208
	diagrams	N.C.		R116,132
	and workings, paper by Hall	28	1	110, 111
	reserves	N.C.		R81, 220
		29	1	196

GDIF FORM NO. 8

ODM GENERAL INDEX SEARCH

Words searched:

MOOSE LAKE
NEW JASON MINES
NORAMCO EXPLORATIONS INC.
NORTH MINE
NORTHGATE EXPLORATION LTD.
ONAPING MINE
ONAPING RIVER
PACEMAKER MINES & OILS LTD.
PENMAN, J. O.
STRATHCONA MINE
TAYLOR, S.
VIVIAN, H. H. CO.

Index Volume	Listing:	Report Volume	Part	Page
2	Levack Nickel Mine, Levack Tp., cont'd			
	smelting	N.C.		R451
	Photos	N.C.		R164
		26		82
		29	1	201
	Production (1916)	26		23
	(1917)	27	1	25
	(1918)	28	1	22
	(1919)	29	1	18
	(1920)	30	1	16
	(1923)	34	1	21
	Richness of, unexpected	N.C.		R518
	Section from, to Murray Nickel Mine	N.C.		R121
	Trap rock quarried	34	1	45
2	Levack Tp., Sud.			
	Nickel ores	N.C.		R54
	exploratory work in	N.C.		R185,208
	norite	29	1	204
2	Little Levack Nickel Mine, Levack Tp.			
	Development work	N.C.		R208
2	Strathcona Nickel Mine, Levack Tp.			
	Historical notes	N.C.		R54
	Location See map.	N.C.		R104
	Ore body described	N.C.		R207
	Rocks near, norite and granite gneiss,			
	contact, sketch	34	8	45
3	Levack Nickel Mine, Levack Tp.			
	Accident rate (1937)	47	1	255
	(1938)	48	1	245
	(1939)	49	1	248
	Fire at	39	1	144,169
	Operations (1926)	36	1	151
	(1927)	37	1	165
	(1928)	38	1	165
	(1937)	47	1	25,237
	(1938)	48	1	29,226
	(1939)	49	1	31,231
	Ore reserves (1929)	39	1	145
3	Levack Tp., Sud.			
	Onaping tuff, analysis	38	3	10

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ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
3	Mond Nickel Co. Ltd.			
	Dividends	49	1	31
	Merged with International Nickel Co.	38	1	163
4	Levack Nickel Mine, Levack Tp.			
	Fire at (1944)	54	2	136
		55	1	76
	Rescue station	57	1	72
		58	1	71
5	Boundary Nickel Mine, Levack Tp.			
	Operations (1953)	63	2	117
	(1954)	64	2	108,110
5	Fecunis Lake Nickel-Copper Mine, Levack Tp.			
	Operations (1952)	62	2	97
	(1953)	63	2	117,119
	(1954)	64	2	108-110
5	Hardy Nickel Mine, Levack Tp.			
	Operations (1951)	61	2	89
	(1952)	62	2	96
	(1953)	63	2	117,119
	(1954)	64	2	108-110
5	Levack Nickel Mine, Levack Tp.			
	Fires at (1950)	60	1	63, 64
		61	1	72-75
	(1952)	62	1	74, 77
5	Levack Nickel Mines Ltd.			
	Incorporated	62	1	58
5	Longvack Nickel-Copper Mine, Levack Tp.			
	Operations (1953)	63	2	117,119
	(1954)	64	2	108
5	Strathcona West Nickel Property, Levack Tp.			
	Exploratory work	62	2	97
6	Boundary Nickel Mine, Levack Tp.			
	Operations (1955)	65	2	109,110
	(1956)	66	2	110
	(1957)	67	2	115
	(1958)	68	2	82
	(1959)	69	2	81

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ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
6	Fecunis Lake, Levack Tp.			
	Fault	65	3	38
6	Fecunis Lake Nickel-Copper Mine, Levack Tp.			
	Operations (1955)	65	2	109,110
	(1956)	66	2	110
	(1957)	67	2	114,115
	(1958)	68	2	82
	(1959)	69	2	81
6	Hardy Nickel-Copper Mine, Levack Tp.			
	Fire at (1955)	65	1	57
	Operations (1955)	65	2	109,110
	(1956)	66	2	110
	(1958)	68	2	82
	(1959)	69	2	80
6	Longvack Nickel-Copper Mine, Levack Tp.			
	Operations (1955)	65	2	109,110
	(1956)	66	2	110
	(1958)	68	2	82
	(1959)	69	2	81
6	Onaping Nickel-Copper Mine, Levack Tp.			
	Operations (1955)	65	2	109,110
	(1956)	66	2	110
	(1957)	67	2	114,115
	(1958)	68	2	82
	(1959)	69	2	81
7	Boundary Nickel Mine, Levack Tp.			
	Operations (1960)	70		83,85,88
	(1961)	71		89,91,93
	(1962)	72		88,90
	(1963)	73		89
7	Fecunis Lake Nickel-Copper Mine, Levack Tp.			
	Operations (1960)	70		83,85-88
	(1961)	71		88,92
	(1962)	72		88,91
	(1963)	73		89
7	Hardy Nickel-Copper Mine, Levack Tp.			
	Operations (1960)	70		83,84, 86-88
	(1961)	71		89,91

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ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
7	Hardy Nickel-Copper Mine, Levack Tp., cont'd			
	(1962)	72		88,90
	(1963)	73		87
7	Levack Nickel Mine, Levack Tp.			
	Operations (1960)	70		92, 94
	(1961)	71		100
	(1962)	72		101
	(1963)	73		98
7	Longvack Nickel-Copper Mine, Levack Tp.			
	Operations (1960)	70		83, 85
	(1961)	71		89,91,94
7	Strathcona Nickel Mine, Levack Tp.			
	Operations (1960)	70		83,86-88
	(1961)	71		89, 92
	(1962)	72		88, 91
	(1963)	73		88,90,98
8	Boundary Mine, Falconbridge			
	Levack Tp., Sudbury Dist.			
	mining property, report on	74		89
		75		88-89
		76		101-102
		77		90
		78		58-59
		79		64-65
		80		63
8	Coleman Mine, Inco			
	Levack Tp., Sudbury Dist.			
	mining property, report on	74		99
		75		99
		76		115
		77		100
		78		68
		79		75
		80		72-73
8	Fecunis Lake Mine, Falconbridge			
	Levack Tp., Sudbury Dist.			
	mining property, report on	74		89-92
		75		89, 91
		76		102,105
		77		90, 93

GDIF FORM NO. 8

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
8	Fecunis Lake Mine, Falconbridge, cont'd			
	mining property, report on	78		58, 61
		79		64, 67
		80		63,66-67
8	Hardy Mine, Falconbridge			
	Levack Tp., Sudbury Dist.	74		89
		75		88-89
		76		101-102
		77		90
		78		58-59
		79		64-65
		80		63
8	Levack Mine, Inco			
	Levack Tp., Sudbury Dist.			
	mining property, report on	74		97-98, 101
		75		97, 100-101
		76		112,117
		77		104,110
		78		74, 79
		79		80, 85
		80		77-78,83
8	Levack Tp., Sudbury Dist.			
	Nickel/copper	74		89-91, 97-98
		75		88-90, 97-98,99
		76		101-105, 112-113, 115
		77		90-92, 100,104
		78		58-60, 68, 74
		79		64-66, 75, 80
		80		63-79
		GR65		1
	Sand & gravel	MP43		60
8	Levack West Mine, Inco			
	Levack Tp., Sudbury Dist.	74		98
		75		97

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ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
8	Levack West Mine, Inco, cont'd			
		76		113
		80		78-79
8	Longvack South Mine, Falconbridge Levack Tp., Sudbury Dist. mining property, report on			
		76		103-104
		77		91
		78		59-60
		79		65
		80		64-65
8	North Mine, Falconbridge Levack Tp., Sudbury Dist. mining property, report on			
		74		90-91
		75		90
		76		103
		77		91
		78		60
		79		66
		80		65
8	Onaping Mine, Falconbridge Levack Tp., Sudbury Dist.			
		74		89
		75		88-89
		76		101-102, 104
		77		90
		78		58-59
		79		64-65
		80		63
8	Onaping River Levack Tp., area, Sudbury Dist.			
		GR65		3, 21
		MP43		60
9	International Nickel Co. of Canada Ltd., The Levack Tp., Sudbury Dist. report on Coleman Mine	ASR7		107
	report on Levack Mine	ASR7		108,109
9	Levack Levack Tp., Sudbury Dist.	GR181		17-89
9	Levack Mine Levack Tp., Sudbury Dist.			
		MP96		87
		MPBP4		82

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ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
9	Levack Mine, Inco			
	Levack Tp., Sudbury Dist.	ASR7		108
9	Levack Nickel Mines Ltd.			
	Levack Tp., Sudbury Dist.	MP96		88
9	Levack Tp., Sudbury Dist.			
	Calcite	MP70		86
	Chalcopyrite	MP70		104-105
	Cubanite	MP70		129
	Epidote	MP70		140
	Garnet	MP70		169
	Geology (quaternary) of the Sudbury Basin area	GR181		
	Hauchecornite	MP70		194
	Millerite	MP70		241
	Nickel/copper float	MDC17		105
	Pentlandite	MP70		275
	Periclase	MP70		277
	Pyrite	MP70		302-303
	Pyrrhotite	MP70		311-312
	Sand & gravel	GR181		47-48, 88-90
	Summary of field work, 1980 by B. O. Dressler	MP96		87,88
8	Strathcona Mine, Falconbridge			
	Levack Tp., Sudbury Dist.			
	mining property, report on	74		90
		75		89-90
		76		102-103, 105
		77		91-94
		78		60-61
		79		66,68
		80		65,67
9	Boundary Mine			
	Levack Tp., Sudbury Dist.	ASR7		101
9	Canadian Radium Corp. Ltd.			
	Levack Tp., Sudbury Dist.	MP96		88
9	Coleman Mine			
	Levack Tp., Sudbury Dist.	ASR7		107
		MPBP4		82

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ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
9	Falconbridge Nickel Mines Ltd. Levack Tp., Sudbury Dist.			
	report on Boundary Mine	ASR7		101
	report on Fecunis L. Mine	ASR7		101
	report on Fraser Mine	ASR7		102
	report on Hardy Mine	ASR7		101
	report on Longvack S. Mine	ASR7		102
	report on N. Mine	ASR7		102
	report on Onaping Mine	ASR7		101
	report on Strathcona Depth Mine	ASR7		102
	report on Strathcona Mine	ASR7		102
9	Levack West Mine Levack Tp., Sudbury Dist.	ASR7		108
		MP87		26,27, 34,35
		MP93		175
		MPBP4		82
9	Longvack South Mine Levack Tp., Sudbury Dist.	ASR7		102
		MPBP4		82-83
9	Mond Nickel Co. Ltd. Levack Tp., Sudbury Dist.	MP96		87
9	North Mine LevacK Tp., Sudbury Dist.	ASR7		102
		MP91		108
		MPBP4		82

GDIF FORM NO. 8

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		REGIONAL GEOLOGICAL COMPILATION MAPS		
Card, K. D.	1966-67	Sudbury Mining Area	ODM Map 2170	1" = 1 mile
	1965, 67	Cartier Sheet	ODM Map P.287	1" = 2 miles
Card, K. D., Innes, D. G.	1980	Geneva Lake	OGS Map 2435	1" = 1/2 mile
Card, K.D., Lumbers, S.B.	1974, 75	Sudbury-Cobalt Geological Compilation (revised)	OGS Map 2361	1" = 4 miles
Card, K. D., Innes, D. G.	1976	Benny Area, Cartier-Carhess Lake Sheet	P.1111	1" = 1/4 mile
Dressler, B. O.	1984	Sudbury Geological Compilation	OGS Map 2491	1:50 000
	1981	Precambrian Geology of Levack Township	OGS Map P.2428	1" = 1/4 mile
	1983	Sudbury Mining Area, West Part	OGS Map P.2602	1:50 000
Langford, F. F.	1958	Levack Township and the Northern Part of Dowling Township	ODM Map P.91	1" = 1/4 mile
		GEOPHYSICAL MAPS		
GSC - ODM	1965	Aeromagnetic Map - Chelmsford	1518G	1" = 1 mile
Gupta, V. K.	1981	Bouguer Gravity and Generalized Map of the Sudbury-Onaping Lake Area	OGS Map P.2482	1:100 000
ODM - GSC	1965	Aeromagnetic Map - Sudbury Sheet	7067G	1" = 4 miles
	1976	Uranium Reconnaissance Program Airborne Gamma Ray Spectrometer Survey, Sudbury	Map P.1610	1:250 000

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		SURFICIAL, PLEISTOCENE, TERRAIN ENGINEERING		
Burwasser, G. J.	1972	Quaternary Geology and Industrial Mineral Resources of the Sudbury Area (West Part)	Map P.751	1:50 000
E.M.R.	1975	Topographic Map - Chelmsford		1:50 000
Gartner, J. F.	1980	N.O.E.G.T.S. Data Base Map, Cartier	Map 5000	1:100 000
		N.O.E.G.T. Study 94, Cartier Area		
		N.O.E.G.T.S. General Construction Capability Map, Cartier	Map 5004	1:100 000
Sado, E. V. and Carswell, B. F.	1987	Surficial Geology of Northern Ontario	OGS Map 2518	1:1 200 000
		MINERAL POTENTIAL MAPS		
Innes, D. G., and Jost, M.	1977	Nickel Deposits of Ontario, East Central Sheet	P.1062	1" = 16 miles
Springer, J.	1977	Ontario Mineral Potential, Northern Part of Sudbury Sheet and Part of North Bay Sheet	OGS Map P.1512	1:250 000
		GEOCHEMICAL MAPS		
		No data available as of April 20, 1988		
		GEOLOGICAL REPORTS AND MAPS		
Adlington, R.	1982	Levack Township - Sudbury Data Series	Map P.2475	1" = 1/4 mile
Brackenbury, C.	1914	Notes on the Rocks of Levack	ODM AR Vol 23, pt.1	pp. 194-201
Burwasser, G. J.	1979	Quaternary Geology of the Sudbury Basin Area	GR 181 Map 2397	1:50 000

GDIF FORM NO.9

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Bussolaro, N., Rousell, D. H., and Beswick, A. E.	1984	Mineralization in the Onaping Formation, Sudbury Basin, Ontario, Project 4A	GSC OFR 1090	
Card, K. D. and Hutchinson, R. W.	1972	The Sudbury Structure: its Regional Geological Setting	GAC Spec Paper 10	pp. 67-78
Card, K. D., and Innes, D. G.	1981	Geology of the Benny Area	GR 206	
Lafleur, J., Dressler, B.O	1985	Geology of Cascaden, Dowling, Levack and Trill Townships	OFR 5533	
Langford, F. F.	1960	Geology of Levack Tp. and the Northern Part of Dowling Tp., District of Sudbury	PR 1960-5	
Peredery, W. V.	1972	Chemistry of Fluidal Glasses and Melt Bodies in the Onaping Formation	GAC Vol. 10	pp. 49-59
Rousell, D. H.	1983	Nature and Origin of Mineralization Inside the Sudbury Basin	OFR 5443	
Shklanka, R.	1969	Copper, Nickel, Lead and Zinc Deposits of Ontario	MRC 12	
Stevenson, J. S.	1972	The Onaping Ash-flow Sheet, Sudbury, Ontario	GAC Spec Paper 10	
Thomson, J. E. et al	1957	Copper, Nickel, Lead and Zinc Deposits in Ontario	MRC 2	
		JOURNALS, ARTICLES, THESES, TECHNICAL REPORTS		
Abel, M. K.	1981	The Structure of the Strathcona Copper Zone	CIM Bull., Feb. 81	pp. 89-97
Abel, M. K. et al	1979	Copper Mineralization in the Footwall Complex, Strathcona Mine, Sudbury, Ontario	Canadian Mineralogist, Vol. 17	pp. 275-285

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Author	Date	Title	Reference	Map Scales and/or Report Pages
Arengi, J. T.	1977	Sedimentary Evolution of the Sudbury Basin, Ontario	Sudbury Theses File	
Assad, R. J.	1955	The Formation of Certain Granite-like Rocks in the Footwall of the Sudbury Norite, Northwest of the Sudbury Basin; M.Sc., McGill University	MP 2	
Chute, N. E.	1938	The Upper Contact of the Sudbury Nickel Intrusive; Ph.D., Harvard University	MP 2	
Cornett, D. J.	?	Ground Control at Strathcona Mine	Can. Mining Jour.	pp. 64-66
Cowan, J. C.	1968	Geology of the Strathcona Ore Deposit	CIM Trans. Vol. 71	pp. 12-28
Desborough, G. A., Larson, R. R.	1970	Nickel-bearing iron sulfides in the Onaping Formation, Sudbury Basin, Ontario	Econ. Geol. Vol. 65	pp. 728-730
Dickson, S. R.	1903	The Ore-deposits of Sudbury, Ontario	Sudbury Theses File	
Doucet, P.	1981	A Petrographic Study of the Mafic Inclusions in the Levack Complex	Sudbury Theses File	
Fullagar, P. D. et al	1971	Rb-Sr Study of Shock-metamorphosed Inclusions from the Onaping Formation, Sudbury, Ontario	CJES, Vol. 8	pp. 435-443
Greenman, L.	1970	The Petrology of the Footwall Breccias in the Vicinity of the Strathcona Mine, Levack, Ontario	Sudbury Theses File	
Hebil, K. E.	1978	A Petrographic Study of the Granite Breccia, Levack Mine, Sudbury, Ontario	Sudbury Theses File	
Hewins, R. H.	1971	The Petrology of Some Marginal Mafic Rocks Along the North Range of the Sudbury Irruptive	Sudbury Theses File	

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SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Hoffman, E. L., et al	1979	The Noble Metal Content of Ore in the Levack West and Little Stobie Mines, Ontario	Can. Mineralogist, Vol. 17	pp. 437-451
Knight, C. W.	1923	The Chemical Composition of the Norite-micropegmatite, Sudbury, Ontario	Econ. Geol., Vol.18	pp. 592-594
Mitchell, G. P., Mutch, A. D.	1956	Geology of the Hardy Mine, Sudbury, Ontario	Can. Mining and Metallurgical Bull., Feb. 1956	
Naldrett, A. J., Kullerud, G.	1967	Investigations of the Ni-Cu Ores and Adjacent Rocks of the Strathcona Mine, Sudbury	Geophysical Lab.	pp. 302-320
		A Study of the Strathcona Mine and its Bearing on the Origin of the Ni-Cu Ores of the Sudbury District	Journal of Petrology, Vol. 8, pt. 3	pp. 453-531
Peredery, W. V.	1972	The Origin of the Rocks at the Base of the Onaping Formation	Sudbury Theses File	
Rae, D. R.	1975	Inclusions in the Sublayer from Strathcona Mine	Sudbury Theses File	
Rousell, D. H.	1975	The Origin of Foliation and Lineation in the Onaping Formation and the Deformation of the Sudbury Basin	CJES, Vol. 12	pp. 1379-1395
	1980	Kink Bands in the Onaping Formation, Sudbury Basin, Ontario	Tectonophysics, Vol. 66	pp. 83-97
Stevenson, J. S.	1961	Recognition of the Quartzite Breccia in the Whitewater Series, Sudbury Basin, Ontario	Trans. of the Royal Society of Canada, Vol. 55, pt. 3	pp. 57-66

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Author	Date	Title	Reference	Map Scales and/or Report Pages
Vanghan, D. J. et al	1971	Pyrrhotites from the Strathcona Mine, Sudbury, Canada: A Thermomagnetic and Mineralogical Study	Econ. Geol., Vol. 66	pp. 1131-1144

NOTES AND ADDENDA

AERIAL PHOTOGRAPHS INDEX

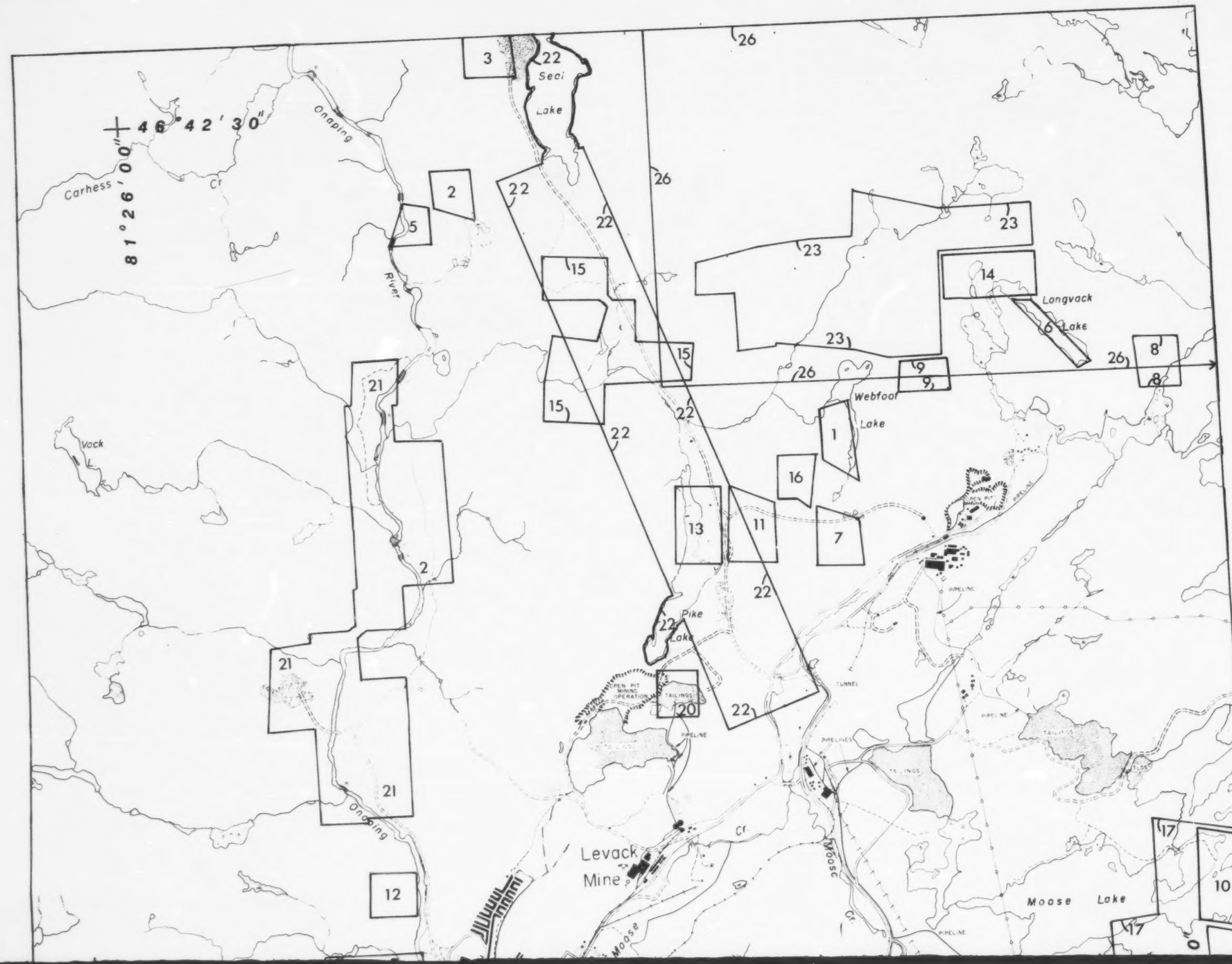
Scale 1" = 1/4 mile

Sudbury Files

Year	Roll	Line	Number
1977	22	4630	82-91
	88	4629	72-80
	30	4628	29-41
	88	4627	27-39
1973	14	4630	254-261
	14	4629	121-138
	21	4628	158-164
	23	4627	163-169

GDIF FORM NO.10

1 of 2



Ministry of Northern Development and Mines

Ontario

Mines and Minerals Division

ONTARIO GEOLOGICAL SURVEY

PROPERTY LOCATION MAP

GEOLOGICAL DATA INVENTORY FOLIO 472

(Map 1 of 2)

LEVACK TOWNSHIP

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

EXPLORATION DATA FILE AREAS

(Map 1 of 2)

LEVACK TOWNSHIP

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

81°26'00"

81°19'00"

46°38'00"

Note–27 Refers to whole Township

EXPLORATION DATA FILE AREAS

- Reference number is always inside work area outlined. See listing in text pages.
- Small area of exploration
- File covers whole township or area

TYPES OF DATA SHOWN ON THIS MAP

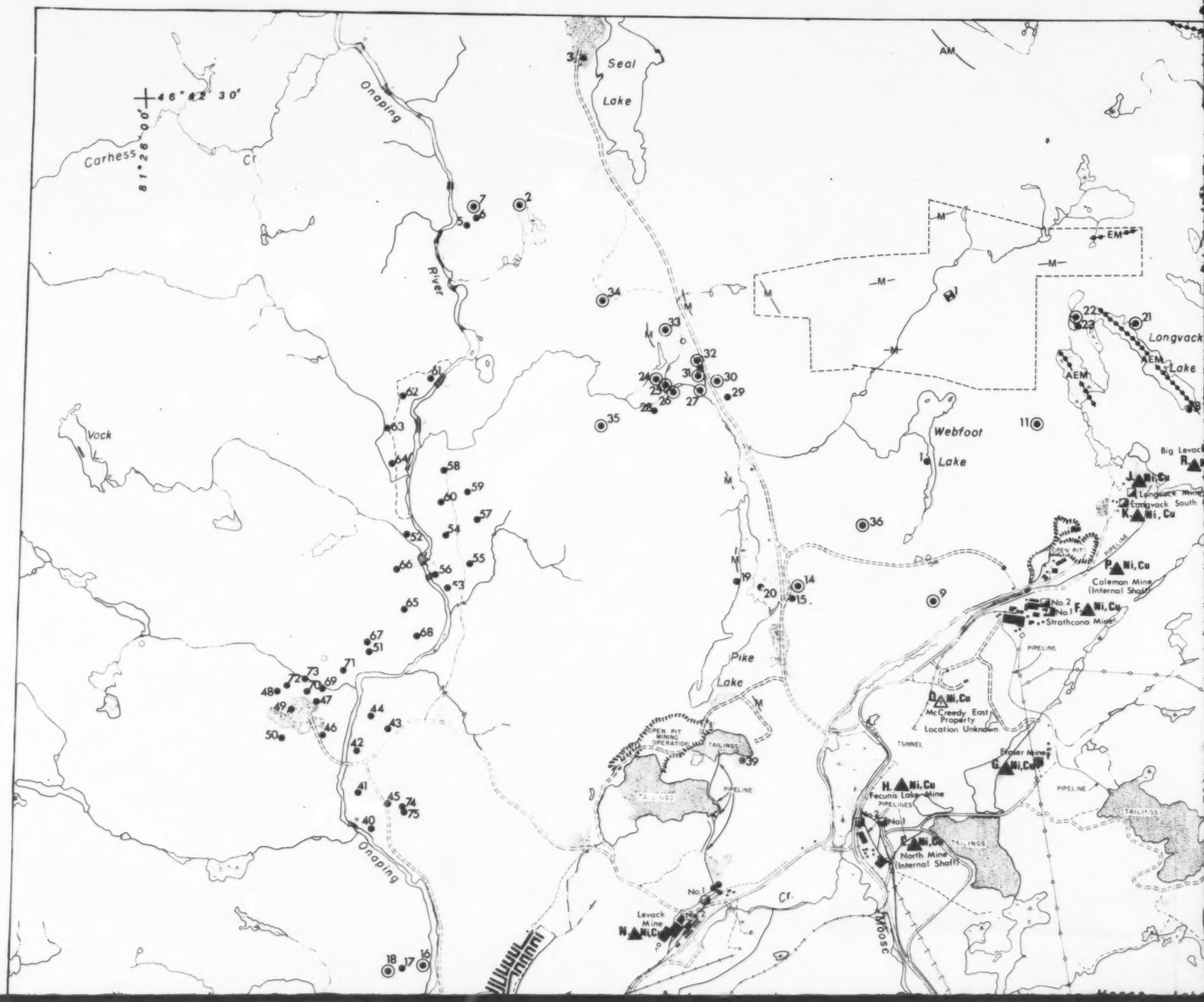
GEOCHEMICAL AND GEOCHRONOLOGICAL DATA

- Geochemical sample site, with reference number
- Area of geochemical sampling, with reference number
- Age dating material sampling site, with reference number

GEOPHYSICAL ANOMALIES

- AM — Airborne magnetic anomaly
- Airborne electromagnetic anomaly Length of anomaly along flight line
- AEM — Airborne electromagnetic anomaly
- Airborne electromagnetic anomaly Conductor axis
- ARA — Airborne radiometric anomaly
- M — Ground magnetic anomaly
- VL — Ground electromagnetic anomaly (VL - Vertical loop; HL - Horizontal loop VLF - Very low freq.; Turam; JEM - Crone Em - 16; EM - Undefined)
- RA — Ground radiometric anomaly
- IP — Induced polarization anomaly
- SP — Self potential anomaly
- AFMAG — Audio-frequency magnetic anomaly (total intensity)
- R — Resistivity anomaly
- GR — Gravity anomaly

MISCELLANEOUS DATA



Ministry of Northern Development and Mines

Mines and Minerals Division

Ontario

ONTARIO GEOLOGICAL SURVEY

EXPLORATION DATA MAP

GEOLOGICAL DATA INVENTORY FOLIO **472**

(Map **2** of **2**)

LEVACK TOWNSHIP

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- cp A. — Mineral occurrence at surface, with reference letter
- Au A. 84' — Mineral occurrence with shaft, depth given with reference letter
- Ag A. — Mineral occurrence reported but exact location uncertain, with reference letter
- cp A. — Mineralized float with reference letter
- A. — Mineral occurrence in drillhole, with reference letter, and drillhole number

DRILLHOLES

- ●2 — Location of single drillhole, with reference number
- ◉2 — Location of closely spaced group of drillholes, with

GEOPHYSICAL ANOMALIES

- AM — Airborne magnetic anomaly
- Airborne electromagnetic anomaly Length of anomaly along flight line
- AEM — Airborne electromagnetic anomaly
- Airborne electromagnetic anomaly Conductor axis
- ARA — Airborne radiometric anomaly
- M — Ground magnetic anomaly
- VL — Ground electromagnetic anomaly (VL - Vertical loop; HL - Horizontal loop VLF - Very low freq.; Turam; JEM - Crone Em - 16; EM - Undefined)
- RA — Ground radiometric anomaly
- IP — Induced polarization anomaly
- SP — Self potential anomaly
- AFMAG — Audio-frequency magnetic anomaly (total intensity)
- R — Resistivity anomaly
- GR — Gravity anomaly

MISCELLANEOUS DATA

- Trenching, pit
- Adit
- Open pit
- Shaft
- Rock quarry
- Sand and/or gravel pit

NOTE: Consult the text that accompanies this map for pertinent lists of data, references, and abbreviations.

GEOLOGICAL DATA INVENTORY FOLIO 472

(Map 2 of 2)

LEVACK TOWNSHIP

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- cp ▲ A. — Mineral occurrence at surface, with reference letter
- Au ◪ A. 84' — Mineral occurrence with shaft, depth given with reference letter
- Ag △ A. — Mineral occurrence reported but exact location uncertain, with reference letter
- cp ▬ A. — Mineralized float with reference letter
- △ A. — Mineral occurrence in drillhole, with reference letter, and drillhole number

DRILLHOLES

- ●² — Location of single drillhole, with reference number
- ◉² — Location of closely spaced group of drillholes, with reference number
- (?)² — Drillhole, exact location uncertain, with reference number
- Property with underground drillholes in this general area, with reference number
- ○² — Property with drillholes which have not been plotted on map, with reference number
- ⊕² — Reverse circulation drillhole; churn drilling, with reference number